

# Chapter 1 Purpose and Need for Action

## 1.1 Introduction

The purpose of this programmatic supplemental environmental impact statement (SEIS) is twofold. First, a need was recognized to prepare a reference document that accurately describes the current management regime in Alaska and current knowledge about the physical, biological, and human environment in order to assess impacts to the environment caused by past and current fishery activities. Significant changes have occurred in the environment since the original environmental impact statements (EISs) were published approximately 20 years ago. While many EISs and environmental assessments (EAs) have been prepared over the ensuing years, none examined the groundfish fishery management plans (FMPs) in their entirety. The National Environmental Policy Act (NEPA) requires preparation of an EIS (or SEIS) when such environmental changes have occurred. This SEIS is intended to bring both the decisionmaker and the public up-to-date on the current state of the environment. In addition, the programmatic SEIS will also serve as the environmental baseline that will be used to shape future management's policy and a future range of potential management actions.

The second purpose of this SEIS is to explain to decisionmakers and the public the effects of the current management regime, as well as different management regimes, on the human environment in order that they might assess whether a different management regime should be implemented. For purposes of this programmatic SEIS, NMFS presumes that the Alaska groundfish fisheries results in significant effects, both positive and negative, to the human and natural environment. This SEIS has been structured in a manner that will identify these effects (direct, indirect, cumulative) to the extent possible and explore alternative policies and actions that might serve to mitigate adverse impacts. Future proposal-specific NEPA documents will reference this SEIS to focus on issues specific to the action being evaluated at that time. The programmatic SEIS may require periodic updates as new information and/or significant changes occur in relation to the fisheries or the environment.

It is intended that this programmatic SEIS serve as the central environmental document for both the Bering Sea and Aleutian Islands (BSAI) Groundfish FMP and Gulf of Alaska (GOA) Groundfish FMP. This goal will be achieved by (1) updating the original EISs by providing a historical review of how the groundfish fisheries and the environment have changed since publication of the original EISs; (2) describing how new scientific and fishery information is being utilized; (3) building upon the analysis of work conducted in the TAC-setting SEIS, (NMFS 1998i) by broadening its scope; (4) describing the cumulative effects of past, present, and reasonably foreseeable future groundfish fisheries management upon the marine ecosystem and the environment (to the extent possible); and (5) reviewing current and alternative management regimes to determine their potential impacts on the human environment.

A programmatic EIS is typically a broad, big picture environmental evaluation that examines a program on a large scale. Federal agencies have been encouraged to develop "multi-tiered" EISs as an attempt to streamline the NEPA process and avoid repetition by allowing the incorporation, by reference, of broad, program-oriented issue analyses when preparing EAs or EISs that focus on specific proposed federal actions (40 CFR Sec. 1500.4(i)). A programmatic EIS is usually prepared at the onset of a new federal program.

NMFS has determined that a programmatic SEIS for the Alaska groundfish fisheries should essentially be a broad environmental review of the GOA and BSAI Groundfish FMPs. This SEIS will include a cumulative impacts analysis of actions that have occurred as a whole, and examine policies and potential future actions from a variety of environmental perspectives. The programmatic SEIS for the Alaska groundfish fisheries will

therefore provide a broad look at the alternatives and the issues, and be qualitative in nature. More case-specific, detailed analyses can be expected in the future when specific proposed management actions are evaluated in subsequent second-level tiered EAs or EISs. In this SEIS, NMFS intends to assess the current management regime and alternatives to it by evaluating decisions that have been made with regard to the fisheries. Additionally, NMFS will compare the current management regime and alternatives to it by examining a reasonable suite of possible actions that could be authorized, and assessing their individual and accumulated impacts. This information will provide the agency and the public with insight as to what environmental effects would result from other management regimes within this analytical framework. Findings of this analysis could result in FMP amendments that could lead to formal rule-making and implementation of changes to the current management regime governing the groundfish fisheries off Alaska.

Reflecting the dynamic nature of the fisheries and their management, changes to fishery regulations were ongoing throughout development of the SEIS. To best accommodate this situation, NMFS based its impacts assessment using the biological, economic, and regulatory environments as the NMFS understood them in January 2000, modified during the year as new information became available.

## **1.2 Proposed Action**

For this SEIS, NMFS defines the federal action as the management of groundfish fisheries off Alaska and the authorization of groundfish fishing activities off Alaska pursuant to approved FMPs. NMFS concluded that defining the federal action in this way would ensure that a programmatic evaluation of the groundfish fisheries would occur in the SEIS and that the intent of NEPA with respect to the requirement for such evaluations would be met. NMFS also determined that defining the federal action in this way would satisfy the directions of the court concerning the scope of the proposed federal action under review as, “among other things, all activities authorized and managed under the FMPs and all amendments thereto, and that addresses the conduct of the GOA and BSAI groundfish fisheries as a whole.” Therefore, this SEIS will not examine in detail nor develop an alternative to the Magnuson-Stevens Act, the authorities and mission of NMFS, or the regional council system. Rather, its scope will focus on the FMPs themselves, as modified by plan and regulatory amendments (Appendices A–C) including the stated policies, goals and objectives, and management tools contained within the plans.

## **1.3 What is NEPA?**

NEPA is legislation signed into law in 1970 in response to an overwhelming national sentiment that federal agencies should take the lead in providing greater protection for the environment. It established environmental policy for the nation, provided an interdisciplinary framework for federal agencies, and established procedures and a public process to ensure that federal agency decisionmakers take environmental factors into account. The analysis prepared for the federal decisionmaker is typically an EA or an EIS.

NEPA requires preparation of EISs for major federal actions significantly affecting the quality of the human environment. As stated in 40 CFR 1502.9(c): “Agencies shall prepare supplements to either draft or final environmental impact statements if: (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.”

## **1.4 What is a Programmatic EIS?**

A programmatic EIS is typically a broad, big picture environmental evaluation that examines a program on a large scale. Federal agencies have been encouraged to develop “multi-tiered” EISs as an attempt to

streamline the NEPA process and avoid repetition by allowing the incorporation, by reference, of broad, program-oriented issues analyses when preparing EAs or EISs that focus on specific proposed federal actions. A programmatic EIS is usually prepared at the onset of a new federal program. In this case, the GOA and BSAI FMPs have been in place for approximately 20 years.

NMFS determined this programmatic SEIS for the Alaska groundfish fisheries should provide a broad analysis of the effects of the GOA and BSAI Groundfish FMPs on the action area. The SEIS includes a cumulative impact analysis of actions that have occurred as a whole, and examines policies and potential future actions from a variety of environmental perspectives. The programmatic SEIS takes a broad look at the alternatives and the issues and will be somewhat qualitative in nature. More case-specific, detailed analyses can be expected in the future when specific proposed management actions are evaluated in subsequent second-level tiered EAs or EISs. This programmatic SEIS provides the agency and the public with insight as to what environmental effects would result from other management regimes within an analytical framework. Findings of this analysis could result in FMP amendments that could lead to formal rule-making and implementation of changes to the current management policy governing the groundfish fisheries off Alaska.

## **1.5 Steps in the NEPA Process**

### **1.5.1 Scoping**

The first step in the NEPA process is scoping (Figure 1.5-1). Scoping is designed to provide an opportunity for the public, agencies, and other interest groups to provide input on potential issues associated with the proposed project. Scoping is used to identify the scope of environmental issues related to the proposed project and can also identify new alternatives to be considered in the SEIS. Scoping is generally accomplished through written communications, statements at public meetings, or formal and informal consultation with agency officials, interested individuals, organizations, and groups.

The Alaska Groundfish Fisheries Programmatic SEIS was developed with opportunity for public participation. Scoping included a Notice of Intent to prepare the SEIS, several advertised scoping meetings (Appendix D), and numerous discussions and meetings with individuals and groups throughout the preparation of this document.

#### **Notice of Intent**

The formal scoping period opened with publication of the Notice of Intent to produce a Supplemental Environmental Impact Statement, published in the *Federal Register* October 1, 1999 (64 FR 53305) (Appendix D). Public comments were initially due to NMFS by November 15, 1999; however, NMFS extended the scoping period until December 15, 1999, to provide the public with more time to develop comments (64 FR 59730) (Appendix E). NMFS solicited public comment on what issues should be addressed in the analysis and what alternatives to status quo management should be considered. All public comments received were considered by NMFS and used to identify the key environmental issues to be addressed in the programmatic SEIS. A summary of the public comments is provided in the Scoping Report (NMFS 2000).

#### **Scoping Meetings and Scoping Report**

A total of four scoping meetings were held: three meetings occurred in Alaska; in Juneau, Anchorage, and Kodiak, and one meeting was held in Seattle, Washington. The scoping meetings are summarized in the SEIS Scoping Report (NMFS 2000). A set of key issues was developed from these scoping meetings.

On March 31, 2000, NMFS published the SEIS Scoping Report for general distribution. A project newsletter was mailed to the mailing list, informing the public of its availability. The report was available in printed form and on the NMFS Alaska Region's web page. On April 6, 2000, NMFS published a Notice of Availability for the SEIS Scoping Report, requesting public comments on the programmatic alternatives and hypothetical regimes (65 FR 18074) (Appendix F). Comments were due to NMFS by May 1, 2000.

## **Coordination with Others**

Federal: Both the U.S. Department of the Interior's Fish and Wildlife Service (USFWS), and the United States Coast Guard (USCG) have non-voting seats on the Council. USFWS has trust authority for seabird and other avian species in the management areas. Expert USFWS staff serve on the Council Groundfish Plan Teams and provided assistance in this analysis. The Environmental Protection Agency (EPA) is a reviewing agency for this SEIS. Comments received from the EPA have been used to guide the preparation of this analysis.

State: Representatives from the states of Alaska, Washington, and Oregon have voting seats on the Council. Expert ADF&G staff provided assistance in this analysis.

NMFS requested that USFWS and ADF&G be cooperating agencies in preparing this SEIS. In addition, NMFS requested the assistance of the Council to provide technical support, as authors of the FMPs and policy advisors to the Secretary. Each agency agreed to participate in the development of this SEIS and provided data, staff, and review for this project.

### **1.5.2 Draft SEIS**

After scoping is completed, a Draft SEIS (DSEIS) is prepared (Figure 1.5-1). The DSEIS evaluates the important social, economic, and environmental impacts that may result from the proposed action. It focuses on cause and effect relationships, providing sufficient evidence and analysis for determining the magnitude of impacts and ways to minimize harm to the environment. The DSEIS should include a full and fair discussion of significant environmental impacts and inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts, or which would enhance the quality of the human environment.

### **1.5.3 Public Comment and Final SEIS**

Following publication of the DSEIS, a minimum 45-day public comment period ensues, and a public hearing is conducted to provide an opportunity for interested parties to provide oral comments on the DSEIS (Figure 1.5-1). Due to the scope and large size of this SEIS, NMFS has chosen to provide the public with a 60-day comment period. Verbal and written comments received are considered and the DSEIS is revised as appropriate. NMFS is required to specifically address each substantive comment received and include copies of the comments in the Final SEIS (FSEIS). Once the FSEIS is completed, it is published and available for a minimum 30-day public comment period. Public comments received on the FSEIS are collected and considered by the lead agency prior to making a final decision.

### **1.5.4 Record of Decision**

Following the completion and submittal of the FSEIS and the public comment period, a Record of Decision (ROD) is prepared by the lead agency (Figure 1.5-1). The ROD includes: (1) a statement regarding what the decision is regarding the federal action; (2) an identification of alternatives considered in reaching the decision; and (3) a statement regarding the means to avoid or minimize environmental harm from the alternative selected.

# STEPS IN THE NEPA-EIS PROCESS

YOU ARE HERE



**Federal Notice of Intent (NOI) to  
Prepare Programmatic SEIS**  
October 1, 1999

**Scoping**  
Scoping Period Officially Set October 1 - November 15, 1999  
NMFS Extends Scoping Period to December 15, 1999  
Public Scoping Meetings Held Week of November 8, 1999  
Written comments requested by December 15, 1999

**Scoping Report Prepared**  
Report provides a summary of scoping comments,  
analysis and decisions leading to a work plan for the SEIS

**Issuance of Draft SEIS**  
Draft EIS is published and made  
available for a 60-day public review

**Comment Period on Draft SEIS**  
This is your opportunity to review the Draft SEIS  
and to provide comments to NOAA/NMFS

**Public Hearings on Draft SEIS**  
An opportunity to meet the SEIS Team, ask questions,  
and provide comments on the Draft SEIS

**Issuance of Final SEIS**  
Final SEIS has been completed and is  
available for 30-day public review

**Comment Period on Final SEIS**  
This is the final opportunity to  
provide comments on the SEIS

**Record of Decision**  
Public statements of agency decisions

Figure 1.5-1 Steps in the NEPA-EIS Process

## 1.6 What is the Magnuson-Stevens Act and What is a FMP?

In 1976, Congress passed into law what is currently known as the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). This law authorized the United States to manage its fishery resources in an area extending from 3 to 200 nautical miles (4.8 to 320 km) off its coast (termed the Exclusive Economic Zone [EEZ]). The management of these marine resources is vested in the Secretary of Commerce (Secretary) and in regional fishery management councils. In the Alaska region, the North Pacific Fishery Management Council (the Council) is responsible for preparing FMPs for marine fishery resources requiring conservation and management, as recommended by the Council. The National Marine Fisheries Service (NMFS), an agency within the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Commerce, is charged with carrying out the federal mandates with regard to marine fish. The NMFS Alaska Regional Office and Alaska Fisheries Science Center (AFSC) research, draft, and review the management actions recommended by the Council.

The Magnuson-Stevens Act established that FMPs must specify the optimum yield from each fishery that would provide the greatest benefit to the United States, and must state how much of that optimum yield can be expected to be harvested in U.S. waters. FMPs must also specify the level of fishing that would constitute overfishing. Using the framework of the FMPs and current information about the marine ecosystem (such as stock status, natural mortality rates, and oceanographic conditions), the Council recommends annual Total Allowable Catch (TAC) specifications to the Secretary. The TAC specifications serve as quotas and Prohibited Species Catch (PSC) limits based on biological and economic determinations made by NMFS. As part of the TAC-process, intermediate determinations of Acceptable Biological Catch (ABC) and Overfishing Level (OFL) for each FMP-established target species or species group precedes recommendations of TAC specifications and PSC limits. The ABC and OFL for each target species provide valuable reference points based on the latest scientific information.

In addition to TAC and PSC, each FMP contains a suite of additional management tools that together characterize the fishery management regime (Section 2.3.4). These management tools are either a framework type measure, thereby allowing for annual or periodic adjustment using a streamlined notice process, or are conventional measures that are fixed in the FMP and its implementing regulations and require a formal plan or regulatory amendment to change. Amendments to the FMP or its regulations are considered annually by the Council, with proposed amendments submitted by both the resource agencies and the public. As a result, the FMPs are dynamic and are continuously changing as new information or problems arise.

The Council prepared and the Secretary approved the *Fishery Management Plan for Groundfish Fishery in the Bering Sea and Aleutian Islands Area* in 1982 (NPFMC 2000(a)) and the *Fishery Management Plan for Groundfish of the Gulf of Alaska* in 1978 (NPFMC 2000(b)). The former has been amended 71 times (Appendix A) and the latter 62 times (Appendix B). Rules and regulations were prepared to implement each of the FMP amendments. National Environmental Policy Act (NEPA) Environmental Impact Statements (EISs) were prepared for the original FMPs when they were approved by the Secretary (NPFMC 1978, NPFMC 1981). An EIS, or an environmental assessment (EA) was prepared for every plan amendment (Appendices A and B). EAs were also prepared at the time of each regulatory amendment as well as for subsequent regulatory actions (Appendix C). Since 1991, environmental assessments resulting in a finding of no significant impact have been written for each year's TAC specifications (Appendix C).

### 1.6.1 Action Area

The subject groundfish fisheries occur in the North Pacific Ocean and Bering Sea in the EEZ from 50°N to 65°N (Figure 1.6-1). The subject waters are divided into two management areas; the BSAI area and the GOA.

The BSAI is further divided into two sub-areas (eastern Bering Sea and Aleutian Islands) and nineteen reporting areas (Figure 1.6-2). The GOA is further divided into three sub-areas (western, central, and eastern) and eight reporting areas (Figure 1.6-3).

The action area for the federally managed BSAI groundfish fisheries effectively covers all of the Bering Sea under U.S. jurisdiction, extending southward to include the waters south of the Aleutian Islands west of 170°W long, to the border of the U.S. EEZ. The GOA FMP applies to the U.S. EEZ of the North Pacific Ocean, exclusive of the Bering Sea, between the eastern Aleutian Islands at 170°W longitude and Dixon Entrance at 132°40'W longitude. These regions encompass those areas directly affected by fishing, and those that are likely affected indirectly by the removal of fish at nearby sites. The area effected by the fisheries, necessarily, includes adjacent state waters and international waters. A review of areas fished by the groundfish fisheries (Fritz et al. 1998) suggests that virtually the entire Bering Sea and GOA (from the continental slope shoreward) is utilized by one fishery or another.

## **1.7 Organization of this SEIS and Issues to be Addressed**

It will be readily apparent, that the management of the Alaska groundfish fisheries is a large, complex program, that continues to evolve as more information is obtained on the fishery resources, the marine ecosystem, and those that derive benefits from it. One objective of this programmatic SEIS, is to use the document as a means of better educating the public about Alaska groundfish management, the current regime, what is known and not known about the ecosystem, and the complex set of laws and regulations that apply to the federal fisheries management. To meet this objective, we have organized this document into a series of chapters and sections.

Beginning with Chapter 2, we provide an overview on fisheries policy; how it is conveyed, what it means, and how it is currently applied to the groundfish fisheries. In Section 2.3.2 we review the principle laws that govern fisheries management in the United States. In Section 2.4 we introduce the programmatic alternatives, which emphasize different approaches to manage the groundfish fisheries policy, presented as frameworks that allow management flexibility. We review the current policy statements of each FMP as well as the actions taken by the Council over the last 10 years. Together, this review of current policy serves to contrast alternative policies that, while similar, emphasize a certain set of fisheries management objectives more heavily than others. In doing so, we capture the range of issues raised during the scoping process.

Beginning with Section 2.7, we describe the federal action of this programmatic SEIS: the Alaska Groundfish Fisheries and their Management. This section serves to educate the reader to the environmental conditions and the state of the groundfish fisheries prior to the Magnuson-Stevens Act and how the FMPs have evolved over time as new issues and new information have come to the forefront of policy decisionmaking. Considerable detail is provided on the BSAI and GOA Groundfish FMPs, the fisheries, and the management-Council process. We conclude Chapter 2 with summaries of requirements and actions taken to comply with essential fish habitat, the ESA, and the Marine Mammal Protection Act (MMPA).

Chapter 3 presents a synthesis of our knowledge of the affected environment. It begins with Section 3.1, which presents an overview of the physical environment, followed by Section 3.2 that presents what we know about the effects of fishing on that environment. Sections 3.3 through 3.7, provide background information on the groundfish resources involved, marine mammals, seabirds, and other species. Section 3.8 provides information on what we know about contaminants in the region, and Section 3.9 provides an overview on the interactions of climate, commercial fishing, and the marine ecosystem. Section 3.10 provides an overview of the harvesting and processing sectors participating in the fisheries and the regions and communities that support fishing activities.

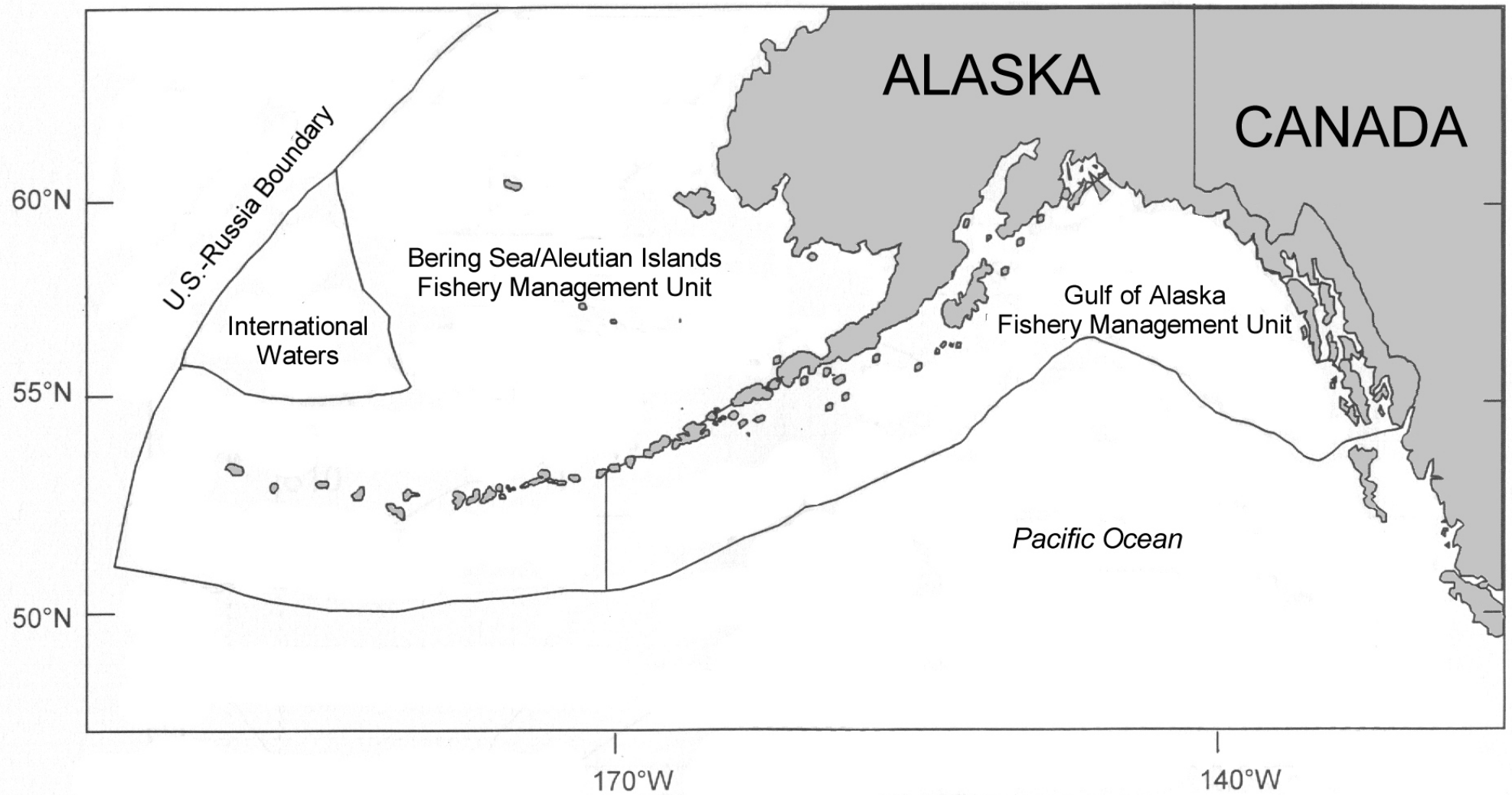


Figure 1.6-1 Fishery management units treated in the SEIS - the Bering Sea and Aleutian Islands region and the Gulf of Alaska.



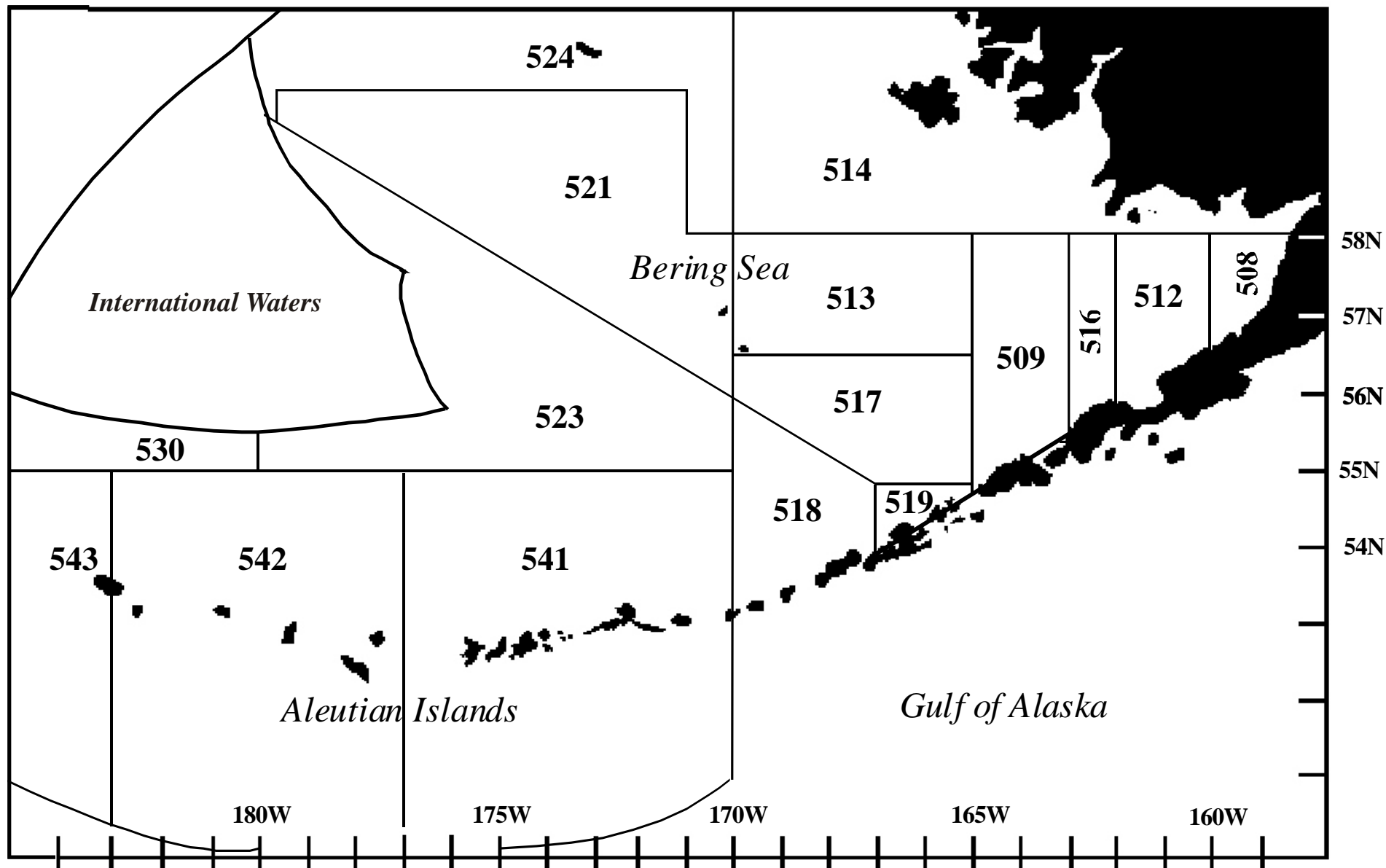


Figure 1.6-2 Bering Sea and Aleutian Islands statistical and reporting areas.

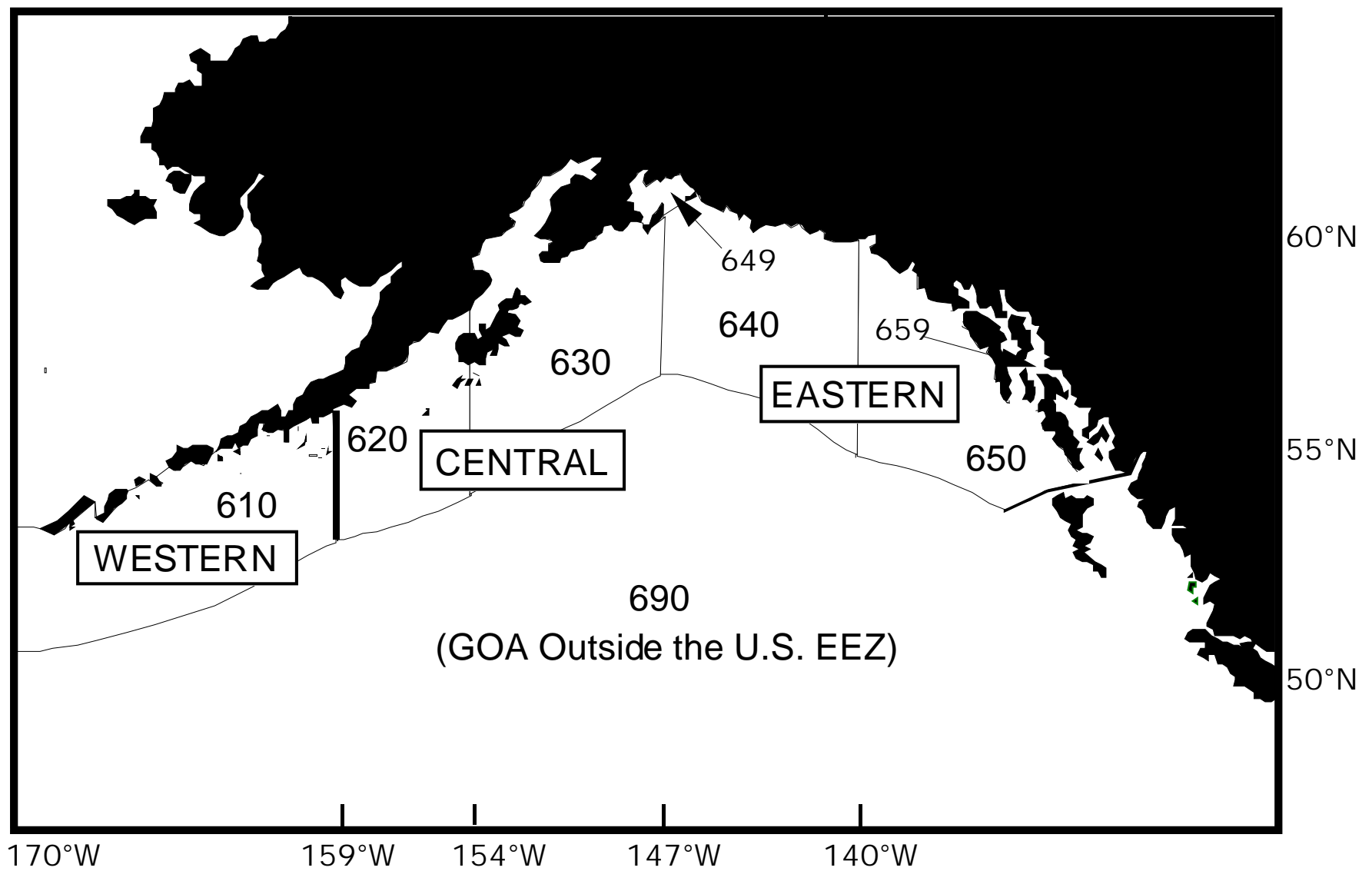


Figure 1.6-3 Gulf of Alaska statistical and reporting areas.

Chapter 4 is the heart of this SEIS analysis. What are the effects of groundfish fishing on the environment and how might those effects be altered by changes to the current FMPs? We begin in Section 4.1 with a description of the process NMFS undertook to develop alternative fisheries management regimes for purposes of illustrating the general environmental effects of a FMP. Agency analysts, expert in fishery science and fisheries management, were tasked with developing one or more hypothetical, or model, regimes for each programmatic policy alternative. Using the current FMP as the baseline, analysts reviewed all of the elements of the BSAI and GOA groundfish FMPs, and tailored a hypothetical suite of actions that could reasonably serve as one method of achieving a particular set of policy objectives. Analysis of these model regimes, and contrasting them with the current, or status quo, regime, is intended to illustrate the general environmental effects of each programmatic policy alternative. In doing so, this SEIS will provide the Council and NMFS as well as the public with information that can be used to guide future policy decisions.

NMFS review of the scoping comments led to aggregating comments into 26 issue categories (NMFS 2000a). However, the review of public comments clearly indicates that among the 26 issue categories, a subset of 9 issues was mentioned more frequently, suggesting that these issues are the ones most important to the public. NMFS used these key issues to develop the programmatic policy alternatives and for organizing Chapter 4. They are:

- the effects of the alternatives on marine mammals,
- the effects of the alternatives on seabirds,
- the effects of the alternatives on target groundfish species,
- the effects of the alternatives on non-target groundfish species,
- the effects of the alternatives on prohibited species,
- the effects of the alternatives on essential fish habitat,
- the effects of the alternatives on the social economics of the fishery,
- the effects of the alternatives on the marine ecosystem, and
- the cumulative effects of the groundfish fisheries.

Beginning with Section 4.2, we evaluate the effects of the current status quo regime, and the alternative management regimes from the perspective of increasing protection to marine mammals while providing for sustainable fisheries. Sections 4.3 through 4.9, conduct a similar assessment from the perspective of each of the key issues (e.g., subject) areas. Sections 4.10 through 4.12 provide general information on the effects of the alternative regimes on enforcement and management programs, on other environmental issues, and whether they provide any opportunity for energy conservation potential. Section 4.13 presents results from our cumulative impacts analysis, and we conclude the chapter with a general summary of our findings.